

NATIONAL SECURITY COUNCIL

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July 30, 1973

NOTE FOR: BRENT SCOWCROFT  
FROM: MICHAEL GUHIN *mg*  
THRU: DAVID ELLIOTT *de*  
SUBJECT: More on US/Japan Uranium  
Enrichment Venture

Per your request, attached is a copy of the OMB staff paper on the above subject.

I understand that Mr. Ash's memorandum for the President, a copy of which we have not yet received, follows the attached almost exactly with the exception that it includes an introductory paragraph indicating the contents of the memorandum

Attachment

DOE REVIEWED 15-Dec-2010: NO OBJECTION TO DECLASSIFICATION

REFER TO DOS

DOS REVIEWED 16-Feb-2011: DECLASSIFIED FOR RELEASE IN FULL

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Briefing and Talking Paper -- U.S./Japanese Cooperation  
in Construction of Additional Uranium Enrichment CapacityBackground

Japan is heavily committed to nuclear power and is presently dependent upon U.S. supplies of uranium enrichment services to fuel its power plants.

- At last fall's Honolulu meeting, you agreed with Prime Minister Tanaka to establish a working group to study the feasibility of Japanese participation in a U.S.-based uranium enrichment plant.
- U.S./Japanese negotiations have been conducted on two fronts:
  - A Japanese Enrichment Survey Committee (ESC) has held meetings last November and this March with a U.S. Steering Group headed by U.S.A.E.C. Commissioner Doub.
  - ESC has also met with several U.S. companies who have declared their intention of building a private enrichment plant in the U.S.
- ESC has conducted detailed negotiations with Uranium Enrichment Associates (UEA)--a combine of Bechtel, Union Carbide and Westinghouse corporations--to participate in a feasibility study of a private uranium enrichment plant. The study would be completed next year.
  - The Japanese would contribute \$3 M (half of the cost).
  - Japan would receive only unclassified results of this study, but the U.S. study group would have access to AEC's classified technology.
  - On July 27, the Atomic Energy Commission authorized UEA to transfer such unclassified information to the Japanese.
  - No further authorizations are required for the study to begin.

The Japanese ESC group has recently postponed a meeting with the U.S. Steering Group, and they are reportedly not ready to conclude negotiations for joint participation in the U.S. study at present.

Possible reasons for the presently cautious Japanese approach include:

- Japanese attempts to improve bargaining position with USA.
- Japanese interest in assessing the outcome of Joint Committee hearings on uranium enrichment on July 31-August 1.
- Recent announcement by a GE/Exxon group <sup>of interest in constructing</sup> to build a U.S. plant that may provide an additional option for Japanese participation.

[~~Lack of consensus within the Japanese group.~~]

Talking Points

We recognize the vital importance of providing the additional uranium enrichment capacity that will be required in the next decade--and the importance of assuring that this capacity is available when it is needed.

[~~We are firmly committed to meeting the needs of this rapidly expanding market both in the U.S. and abroad.~~]

We believe that our two countries gain strong mutual advantages from our trade in uranium enrichment services, and that the expansion of this exchange will continue to draw us closer together in the years ahead.

In a message which I sent to the Congress last April, I made reference to the need for constructing additional uranium enrichment capacity in the U.S. in order to meet growing needs. I said at that time that the U.S. Government looks to private industry to provide this capacity, and I very much hope and expect that American industry will accept this challenge. I likewise hope that Japan will find it desirable to join in this U.S. enterprise.

- I am very pleased that Japan <sup>the</sup> ~~has made tentative arrangements~~ <sup>group has concluded serious negotiations</sup> to participate financially in an intensive study effort which is being initiated by a group of large U.S. corporations, known collectively as Uranium Enrichment Associates.
- In the spirit of our meeting last fall, we have given maximum encouragement to the Japanese delegation in exploring the possibility of joint U.S./Japanese participation in private U.S. uranium enrichment ventures-- and we look forward to the fruition of these efforts in the near future.
- Although we now look to <sup>the</sup> private <sup>sector</sup> [U.S. firms] to provide new capacity required in the future, the U.S. Government will continue to play a key role in assuring that future needs are met.

MEMORANDUM

NATIONAL SECURITY COUNCIL

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INFORMATION/4220 Follow-up  
July 30, 1973

MEMORANDUM FOR: BRENT SCOWCROFT

FROM: MICHAEL GUHIN *MG*

THRU: DAVID ELLIOTT *DE*

SUBJECT: More on US/Japan Uranium Enrichment  
Venture

Following up on my July 27 memorandum on the above subject, you should be aware that Mr. Ash has asked his staff to prepare a briefing and talking paper for the President on the same subject. The substance of the OMB memorandum follows the details we provided you and is a considerable expansion on the coverage of this topic in the President's briefing book.

This assignment apparently derived from Mr. Ash's meeting with Ambassador Ingersoll. At any rate, OMB staff has coordinated the substance of their paper with us and we understand it will be forwarded today.

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MEMORANDUM



NATIONAL SECURITY COUNCIL

INFORMATION/4220

July 27, 1973

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MEMORANDUM FOR: BRENT SCOWCROFT

FROM: MICHAEL GUHIN   
THRU: DAVID ELLIOTT 

SUBJECT: Status of Proposed US-Japan Joint  
Uranium Enrichment Venture

Japan has a sizeable commitment to nuclear power and will, for the foreseeable future, continue to be dependent upon the US for enriched uranium fuel.

In September 1972, the President and Prime Minister Tanaka agreed that a group should be formed to study the feasibility of Japanese participation in the next uranium enrichment plant in the US, planned by the Administration to be a private development.

The Japanese have had discussions with a steering group headed by AEC Commissioner Doub and discussions with two US private groups which have expressed an interest in building enrichment plants. (A recent AEC briefing paper and an Elliott memorandum regarding some Japanese concerns are attached for further background information if you wish.)

We do not know what particular problem Secretary Schlesinger may have had in mind. However, while the Japanese were earlier very eager to get involved and pay half the costs of a feasibility study, they are now moving somewhat more cautiously. There are several reasons for this caution.

-- Only today did the AEC give the go ahead for Uranium Enrichment Associates (UEA, a Bechtel-Westinghouse-Union Carbide group) to provide to the Japanese the unclassified results of a feasibility study based on classified materials. (If this was the particular problem Schlesinger had in mind, which it may well have been, it is no longer a problem.)

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- The Japanese have thus far been unable to obtain from UEA the terms they desire regarding their role in determining the direction of the study.
- Reynolds Company and Exxon-General Electric have recently stated intentions to investigate the desirability of building enrichment plants, and the possibility of more than one horse in the race may be confusing the Japanese as to their next step of investing in a feasibility study.
- Finally, the Japanese are aware of some possible division in the US government regarding whether private industry will in fact build future enrichment capacity or whether the US government will have to step in to meet this need.

In this connection, the Joint Committee on Atomic Energy will begin extensive public hearings later this month, and some members of the Committee (particularly Congressman Hosmer) may push for some kind of early resolution of this issue involving either direct construction of a new plant by AEC or some form of quasi-government corporation such as COMSAT.

Also, to cover their bets and perhaps to enhance somewhat their bargaining position with US firms, the Japanese are associating themselves with studies by other countries (particularly in the Association for Centrifuge Evaluation in Europe, a French study centering on their diffusion technology, and some talk with the USSR).

Nonetheless, given AEC's action today as noted above, the joint US-Japan venture is moving forward to the preinvestment, feasibility study stage.

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MEMORANDUM

## NATIONAL SECURITY COUNCIL

July 19, 1973

MEMORANDUM FOR: JOHN FROEBE

FROM: DAVID ELLIOTT *D.E.*

SUBJECT: The US Position Relative to Japanese  
Concerns re the Development of a  
Joint Uranium Enrichment Facility

The following views were obtained from the AEC in connection with the question raised by the Japanese at our lunch on July 18.

1. What should the Japanese do to avoid partnering with the "wrong" US consortium, i. e., one which chooses rather late in the game not to invest in the construction of an enrichment plant?

Since the US private sector is involved, the US government has no direct role. The Japanese may wish to consider covering their bets by involving themselves with all possible contenders at this time, but what the involvement might be is subject to successful negotiation. (The Japanese may consider this expensively redundant, or perhaps not even feasible given US companies protective attitudes toward proprietary information and their desire to avoid the possibility of giving insights to competitors via a common Japanese partner.)

Realistically, however, if one US consortium takes the plunge, it will presumably be most interested in obtaining investment capital, and the Japanese will undoubtedly be welcome either at an early or late stage.

2. If the private sector does not commit to construction of a plant, what can Japan do to obtain a guaranteed supply of fuel?

The answer would depend on the structure which substituted for private ownership. If the US government builds the plant, there presumably would be no Japanese investment. However, we would write long-term supply contracts with Japan, which our government would honor. (A threat of a "soy bean problem" would not comparably exist. Agricultural export contracts are between private US companies and Japan, and implicit (or explicit) in these contracts is a condition that the contract is dependent on



present and future US government export controls. If the US government contracts to deliver uranium, there is no analogous "escape clause".)

If some other mechanism is used to obtain new enrichment facilities, then we would have to negotiate some satisfactory arrangement with Japan, recognizing that it is US policy to encourage and facilitate Japanese participation and cooperation in this field.

3. Japan would like to share equally in prescribing the terms of contracts and statements of work, and to share the business associated with studies, development efforts, and follow-on construction work.

We are not motivated and, moreover, powerless to force UEA to be more forthcoming toward Japan's role in their joint effort. (Joint does not mean equal, although there may not be Japanese understanding of this point.) If Japan feels that its interests are not being considered sufficiently, its leverage is through its investment. In the current study phase, Japan's position may be necessarily secondary because most of the relevant information exists here. In any case, we hope they are taking a long-range view in all of these matters.

If Japanese demands also encompass a formal requirement for equipment purchases in Japan to offset their investment, we again would not intervene with our companies, but would observe: (1) Japan could certainly look to capturing a considerable amount of the equipment business via the normal means of low bid, and (2) Japan should not expect preferential treatment viz-a-viz the other UEA partners (Bechtel, Union Carbide, and Westinghouse) -- for certainly one of them could not demand the purchase of its equipment as a price for its investment. Business is not conducted in that fashion, even if laws allowed it.

IN U.S.-BASED ENRICHMENT PLANT

SUMMARY

President Nixon and Prime Minister Tanaka, in their talks in the fall of 1972, agreed to the early formation of a U.S.-Japan working group to begin the study of the feasibility of Japanese participation in a U.S. based uranium enrichment plant. A Steering Group headed by AEC Commissioner Doub has been formed. This group met with the Japanese Enrichment Survey Committee (ESC) in November of 1972, in March of 1973, and expects to hold a meeting later this month to discuss and facilitate Japanese participation in a U.S.-based enrichment plant.

The Japanese ESC has had discussions with at least two U.S. groups which have expressed an interest in building enriching plants -- namely Reynold's Metals and the Uranium Enrichment Associates (UEA) (comprised of Bechtel, Union Carbide and Westinghouse corporations). The ESC and UEA have come to general agreement on, and plan soon to sign, a contract providing for Japanese participation in a study aimed at evaluating technologies, sites and economic factors for an enriching plant. The Japanese would contribute \$3 million -- or one-half the total cost -- toward this study, the results of which would be available about September 1974. It is the present AEC position that any foreign participation in a U.S. private plant would be without access to U.S. Government enriching technology. Assuming conclusion of an arrangement between ESC and UEA (or any other U.S. group which may develop) the Japanese would receive only the unclassified results of studies made by the U.S. group, which would have access to classified AEC enriching technology.

Relatedly, the Japanese are keeping open a number of other options related to their future needs for enriching services. Among these are: (1) participation in the Association for Centrifuge Evaluation (ACE), an association formed by the joint German-UK-Dutch centrifuge organization (URENCO) to interest commercial groups from various countries in participation in commercial centrifuge enriching plants;

(2) participation in a joint study group with the French to consider the feasibility of a gaseous diffusion enriching plant with French technology and multinational participation (conceivably located in Australia or Europe); (3) a domestic R&D program in enriching technology, heavily oriented to centrifuge technology, with the goal of a small operating enriching capability by 1985 and (4) a continuing interest in considering participation in other potential multinational enriching projects, such as the one being studied by BRINCO (of Canada), based on U.S. diffusion technology and Canadian hydro-power.

#### TALKING POINTS

1. The U.S. has actively sought to encourage Japanese interest in participation in a U.S. enrichment plant. In the fall of 1972, following the Nixon/Tanaka talks, the Commission established a Steering Group, headed by Commissioner Doub, to work with the Japanese. Meetings were held, between the Steering Group and ESC, in November 1972 and March 1973, with another meeting planned for later this month.
2. Considerable effort has been made in the meetings to clarify, for the Japanese, the U.S. position in regard to the conditions for such participation, particularly as regards access to Government technology.
3. The AEC earlier has authorized a U.S. group (Carbide-Bechtel) to serve in a consulting capacity to ESC in evaluating, on an unclassified basis, economic and other considerations involved in Japanese participation in a gaseous diffusion enrichment plant.
4. The Steering Group has encouraged the ESC group to make contact with appropriate U.S. industry groups indicating an interest in building and operating private enriching facilities. In this regard, several U.S. groups have had discussions with the Japanese and it is our understanding that essential agreement has been reached on an arrangement for ESC participation in the UEA studies expected soon to be underway. Based on our knowledge of the planned UEA study, it is our belief that a study

of this scope and depth will be necessary before appropriate decisions can be made on the construction of an enrichment facility which may represent an investment of several billions of dollars.

## DISCUSSION

1. The AEC is developing contingency plans for providing additional enriching facilities should U.S. private industry not proceed on a timely basis. Such contingency plans assure that Japan will continue to have access to adequate supplies of U.S. enrichment services to fuel its major nuclear power program, which is almost completely dependent on the supply of enriched uranium. Should it prove necessary for the U.S. Government to build an additional enrichment plant, the type of Japanese participation in such a plant would be determined through continuing consultations between the U.S. and Japan. Based on our current planning estimates, a decision on construction of the next U.S. plant will not have to be made before late CY 1974 at the earliest, with actual construction beginning about a year to eighteen months later. Thus, final decisions need not be made until the results of the UEA study -- and possibly other similar studies -- are available.
2. If the UEA study should conclude that a privately-constructed enriching facility should use centrifuge, rather than diffusion, technology, the AEC would be prepared to discuss with Japan the conditions under which Japanese participation in a U.S.-based centrifuge plant might be possible.